

1 ABSTRACT

2 An injection device for humidifying a reactor space and injecting and dispersing reagents
3 into the humidified reactor space, including an exterior injection duct for high-velocity gas
4 injection and at least one interior injector for reagent and humidifying agent injection as droplets
5 with a droplet environment. The high-velocity gas ensuring the humidification of the liquid
6 droplet environment and mixing and dispersion of the liquid reagent droplets into the reactor. A
7 multiple injection device system and a method for operating the system are also described.